CDC/ATSDR PFAS Exposure Assessment Community Level Results

Spokane County (WA) near Fairchild Air Force Base

INFORMATION TO PROTECT OUR COMMUNITIES

In 2019, the Centers for Disease Control and Prevention (CDC) and the Agency for Toxic Substances and Disease Registry (ATSDR) started exposure assessments (EAs) in communities near current or former military bases known to have had per- and polyfluoroalkyl substances (PFAS) in their drinking water. Individuals who participated in the EAs provided blood and urine samples to CDC/ATSDR for analysis. We sent letters to participants that included their individual lab results.

We are also reviewing additional information, like age and location, to better understand the community's exposure. Once our full analysis is complete, CDC/ATSDR will host an in-person community meeting to share our findings and recommendations.

The Spokane County, WA site focused on an area near Fairchild Air Force Base (AF). A map of the sampling area can be found at: www.atsdr.cdc.gov/pfas/communities/Spokane-County-WA.html

Spokane County (WA) near Fairchild Air Force Base PFAS Exposure Assessment Participation

A total of **333** people participated in the exposure assessment:

286 adults
47 children

Those people represented **168** households

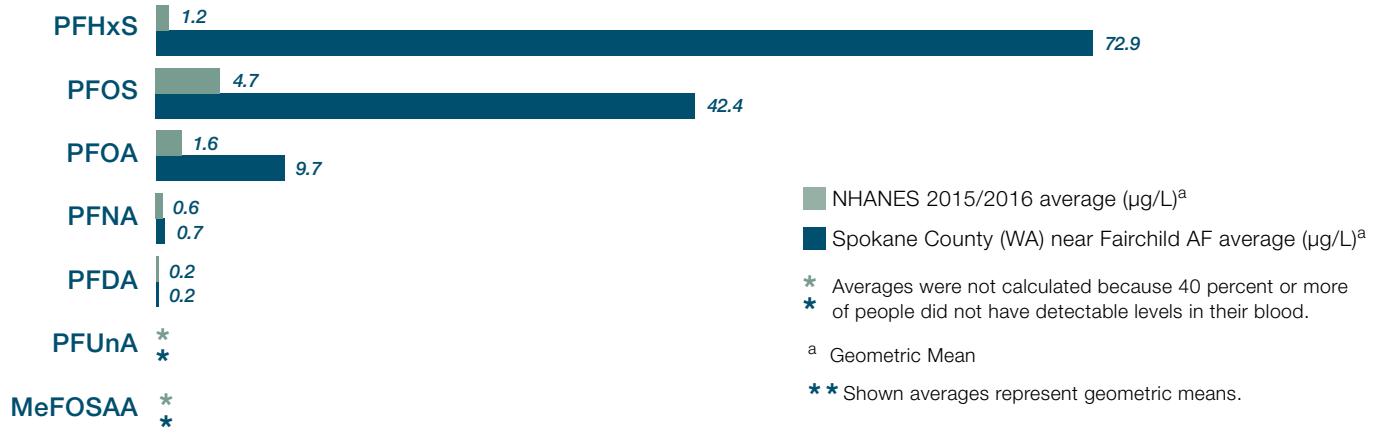
Since 1999, the National Health and Nutrition Examination Survey (NHANES) has measured PFAS levels in blood in the U.S. population. Most people in the United States have been exposed to PFAS and have PFAS in their blood.

PFAS Levels in Blood

The lab tested participants' blood for 7 different PFAS. PFAS levels are measured in micrograms per liter (µg/L).

CDC/ATSDR compared the levels of PFAS in participant's blood across the community to the levels found in the U.S. population. Three PFAS (PFOA, PFOS and PFHxS) were detected above national averages. The levels of MeFOSAA, PFUnA, PFNA, and PFDA were similar to national averages.

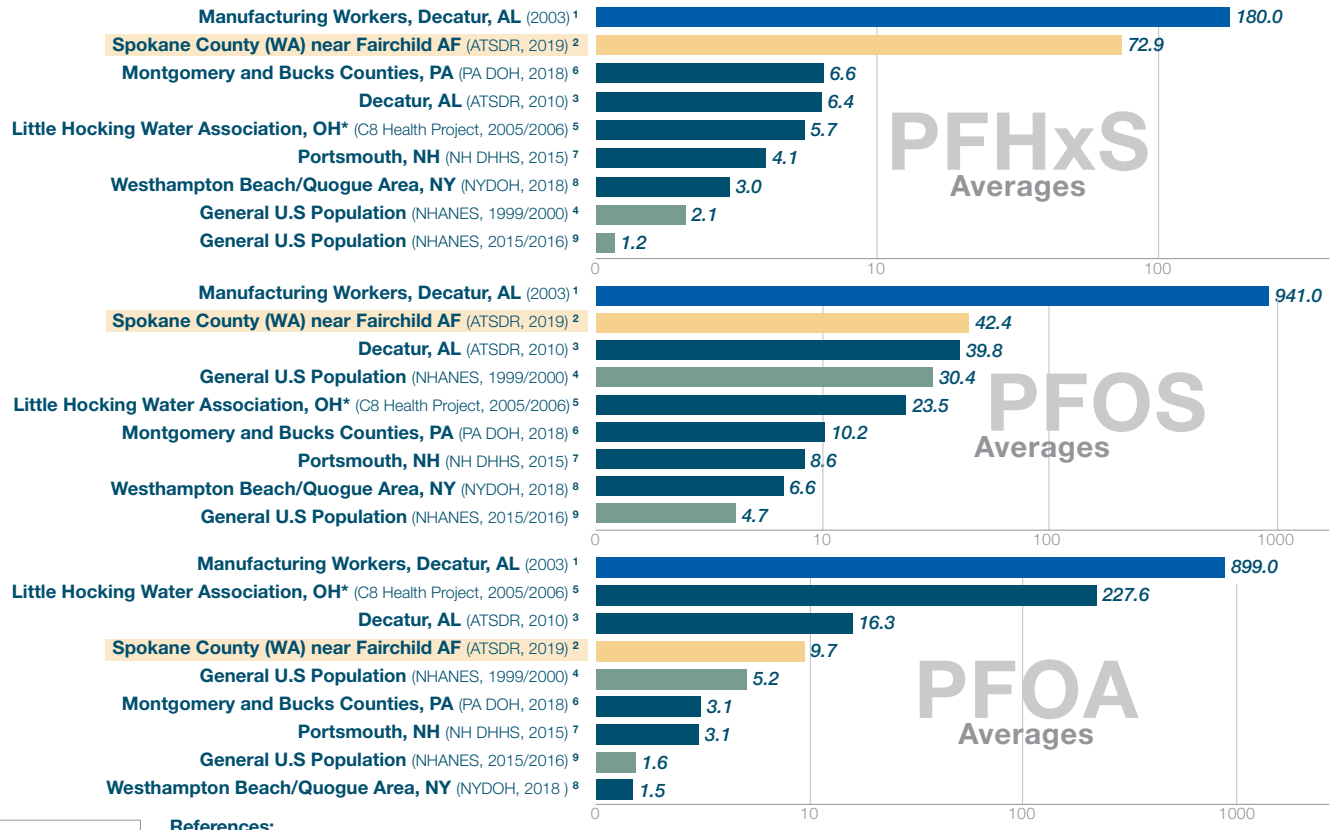
PFAS Levels in Blood Compared to National Averages**



The numbers below show the **percentage** of participants with PFAS levels above the national average.

- **PFHxS** 99% of participants
- **PFOS** 98% of participants
- **PFOA** 96% of participants
- **PFDA** 71% of participants
- **PFNA** 66% of participants

PFAS Levels in Blood Compared to Other Studies**



- U.S. Population
- Exposed Community
- Occupational Exposure
- Spokane County (WA) near Fairchild AF

References:

1. https://www.tandfonline.com/doi/pdf/10.1080/15428110308984859?needAccess=true
2. CDC/ATSDR 2019
3. https://www.atsdr.cdc.gov/HAC/pha/Decatur/Perfluorochemical_Serum%20Sampling.pdf
4. https://www.cdc.gov/exposurereport/pdf/FourthReport_UpdatedTables_Volume1_Jan2019-508.pdf
5. https://ehp.niehs.nih.gov/doi/pdf/10.1289/ehp.0800379
6. https://www.health.pa.gov/topics/Documents/Environmental%20Health/PEATT%20Pilot%20Project%20Final%20Report%20April%2029%202019.pdf
7. https://www.dhhs.nh.gov/dphs/documents/pease-pfc-blood-testing.pdf
8. https://www.health.ny.gov/environmental/investigations/drinkingwaterresponse/docs/westhampton_quogue_group_level_blood_testing
9. https://www.cdc.gov/exposurereport/pdf/FourthReport_UpdatedTables_Volume1_Jan2019-508.pdf

* The study reported medians instead of averages. ** Shown averages represent geometric means.

PFAS Levels in Urine:

All participants provided a urine sample, some of the samples were analyzed. PFBA and PFHxS were detected at low concentrations in 53% and 27% of the samples respectively.

PFAS Levels in Tap Water:

CDC/ATSDR collected and tested tap water samples from some participating households. PFAS levels for all 19 tap water samples were below all federal and applicable state guidelines for PFAS in drinking water.

Local authorities in Airway Heights have taken action to reduce levels of PFAS in drinking water. Based on the information ATSDR has reviewed, the public drinking water supply in Airway Heights currently meets all federal guidelines for PFAS. ATSDR does not recommend community members use alternative sources of water.

PFAS Levels in Dust:

CDC/ATSDR collected and analyzed indoor dust samples from 19 participating households. CDC/ATSDR is evaluating the dust sample results and will have more information in the final report.

About the Results:

CDC/ATSDR is evaluating data collected from the PFAS EA to better understand exposure in the community. The PFAS EA measures PFAS levels in people's bodies but is not able to identify health effects associated with these levels of exposure. We are working to better understand health effects from PFAS exposure through the Multi-site Health Study. www.atsdr.cdc.gov/pfas/Multi-Site-Health-Study.html.

We are also reaching out to doctors, nurses, and other health care providers in your area to provide PFAS information. PFAS clinician guidance and continuing medical education can be found at atsdr.cdc.gov/PFAS.

For More Information:

Visit **www.atsdr.cdc.gov/pfas**
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Agency for Toxic Substances and Disease Registry